

## **ABSTRACT**

An audio signal encoding device includes a downmix signal encoding unit 203 and an auxiliary information generation unit 204. The downmix signal encoding unit 203 generates a downmix signal acquired by adding input signals each other using a predetermined method, encodes the downmix signal, and outputs downmix signal information 206. The auxiliary information generation unit 204 generates auxiliary information 205 using the downmix signal and the downmix signal information 206 generated by the downmix signal encoding unit 203. The auxiliary information generation unit 204 efficiently quantizes the auxiliary information 205 using human's characteristics of a perceptual direction of a sound source, a perceptual broadening, and a perceptual distance.